

WHAT IS CLAIMED IS:

1. A switching circuit comprising:
switching transistors connected to one of an
5 input terminal and an output terminal of the switching
circuit; and
a control bias supply circuit that supplies a
control bias for cutting off all the switching
transistors to the switching transistors when all of
10 the switching transistors are in a non-selected state.
2. The switching circuit as claimed in claim 1,
wherein the control bias supply circuit supplies the
control bias to a connection node via which the
15 switching transistors are commonly connected.
3. The switching circuit as claimed in claim 1,
wherein the control bias supply circuit supplies the
control bias in accordance with a voltage signal that
20 is applied from outside of the switching circuit.
4. The switching circuit as claimed in claim 3,
wherein the control bias supply circuit comprises a
diode connected in a forward direction in which the
25 voltage signal is applied.
5. The switching circuit as claimed in claim 1,
wherein:
the control bias supply circuit comprises a bias
30 transistor including a structure of a MESFET (metal
semiconductor field effect transistor); and
the control bias is supplied in accordance with a
voltage signal applied to a gate of the bias transistor.
- 35 6. The switching circuit as claimed in claim 5,
wherein one of a source and a drain of the bias
transistor is connected to a connection node via which

the switching transistors are commonly connected, while the other one of the source and drain is connected to a ground potential through a capacitive element.

5 7. The switching circuit as claimed in claim 1, wherein the control bias supply circuit varies a voltage value of the control bias.

10 8. The switching circuit as claimed in claim 1, wherein the control bias supply circuit selectively supplies one control bias from among a plurality of control biases.

15 9. The switching circuit as claimed in claim 1, wherein the control bias supply circuit varies a voltage value of the control bias when all the switching circuits are in the non-selected state.

20 10. The switching circuit as claimed in claim 1, wherein the control bias supply circuit supplies the control bias having a first value when at least one of the switching transistors is in a selected state, and supplies the control bias having a second value different from the first value when all the switching
25 transistors are in the non-selected state.

30 11. The switching circuit as claimed in claim 1, further comprising at least three switching transistors, which are commonly connected to one of the input terminal and the output terminal of the switching circuit.

35 12. The switching circuit as claimed in claim 1, further comprising a shunt transistor connected to a source of a first one of the switching transistors, wherein a voltage signal applied to a gate of a second one of the switching transistors is applied to a

gate of the shunt transistor.

13. The switching circuit as claimed in claim 1,
wherein the switching transistors are MESFETs.

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14. The switching circuit as claimed in claim 2,
wherein the common connection node is connected to a
ground potential through a resistor.

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15. The switching circuit as claimed in claim 1,
further comprising ballast resistors, each of which is
connected between a source and a drain of a
corresponding one of the switching transistors.

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16. A switching module comprising:

a switching circuit including switching
transistors connected to one of an input terminal and
an output terminal of the switching circuit, and a
control bias supply circuit that supplies a control
20 bias for cutting off all the switching transistors to
the switching transistors when all of the switching
transistors are in a non-selected state; and

a decoding circuit that decodes a data signal
inputted from an outside of the switching module and
25 produces a voltage signal and/or a selection control
signal for operating the switching circuit.

17. The switching module as claimed in claim 16,
wherein the switching circuit and the decoding circuit
30 are formed on a single chip.

18. A method of controlling a switching circuit
including switching transistors commonly connected to
one of an input terminal and an output terminal of the
switching circuit, comprising a step of:
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supplying a control bias for cutting off all the
switching transistors to the switching transistors when

all the switching transistors are in a non-selected state.

19. The method as claimed in claim 18, wherein
5 the step supplies the control bias to the switching transistors in accordance with a voltage signal applied to a gate of a bias transistor that includes a MESFET.

20. The method as claimed in claim 18, wherein
10 the step comprises a step of varying a voltage value of the control bias.

21. The method of controlling a switching
circuit as claimed in claim 18, wherein the step
15 comprises a step of varying a voltage value of the control bias when all the switching transistors are in the non-selected state.

22. The method of controlling a switching
20 circuit as claimed in claim 18, wherein the step comprises a step of supplying the control bias having a first voltage value when at least one of the switching transistors is in a selected state and supplying the control bias having a second voltage value different
25 from the first voltage value when all the switching transistors are in the non-selected state.